SAFETY DATA SHEET

Section 1: Identification: Product identifier and chemical identity

Product Identifier:	**TALON® RAT & MOUSE KILLER PELLETS**
Other Means of Identification:	**Product code A10976AA**
Recommended Use:	Rodenticide
Details of manufacturer or importer	**Syngenta Australia Pty Ltd** ABN 33 002 933 717
Address:	**Level 1, 2-4 Lyonpark Road** **MACQUARIE PARK NSW 2113** **AUSTRALIA**
Website:	**syngenta.com.au**
Phone Number:	**(02) 8014 5200**
Emergency Phone Number:	**24 hours - 1800 033 111**

Section 2: Hazards identification

Classification of the Hazardous Chemical:	Not classified as hazardous under GHS criteria.
Signal Word:	-
Hazard Statement(s):	-
Precautionary Statement(s):	-
Hazard Symbols:	-

Section 3: Composition and information on ingredients

SUBSTANCE	
Chemical Identity of Pure Substance:	Brodifacoum
Synonym:	PP581
CAS Number:	56073-10-0

MIXTURE		
Chemical Identity of Ingredients:	**CAS No**	**Proportion (% w/w)**
Brodifacoum	56073-10-0	0.005
Non-hazardous ingredients	-	to 100

Section 4: First aid measures

Description of Necessary First Aid Measures:	In case of poisoning by any exposure route contact a doctor or Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment. Vitamin K1 (Phytomenadione) is antidotal. **Ingestion:** ***Humans:*** Rinse mouth with water. Take victim immediately to hospital. Seek medical advice. Do NOT induce vomiting. ***Domestic animals:*** If severe signs of poisoning, immediately transport to veterinarian. For early signs of poisoning, transport to veterinarian. No signs but suspected bait consumption (this includes animals known to have ingested the bait or animals showing evidence of ingestion such as traces of dye from the bait around the mouth or in faeces), induce vomiting only if ingestion is recent (less than 6 hours). Make up a solution of salty water (2 to 3 tablespoons salt in a cup of water), place in a soft drink bottle and squirt down animal's throat. Vomiting should take place in approximately 10 minutes. Seek veterinarian's advice. **Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required. **Skin contact:** Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use. **Inhalation:** Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician or Poison Information Centre immediately
Symptoms Caused by Exposure:	No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled and overexposure occurs are: **Mild exposure:** Reduction in the clotting power of blood, detectable only by laboratory analysis. **Moderate exposure:** Symptoms include bleeding gums, increased tendency to bruise, blood in faeces and urine or excessive bleeding from minor cuts or abrasions. **Severe exposure:** Severe gastrointestinal bleeding, massive internal bleeding resulting in shock, coma and death in very severe cases
Medical Attention and Special Treatment:	**NOTE TO PHYSICIANS AND VETERINARIANS** Brodifacoum, the active constituent of TALON Rat & Mouse Killer Pellets, is a long lasting anticoagulant chemical, which if ingested by humans, domestic animals or pets, can reduce the clotting power of the blood and haemorrhage may result. Vitamin K1 (Phytomenadione) should be administered urgently by medical, appropriate paramedical personnel or veterinarians. If administered intravenously the injection must be given slowly. This product contains anticoagulants with an effect similar to warfarin in that they act by interfering with the synthesis of prothrombin. **Humans:** The specific measure of effect is the prothrombin time. Note: this may not become prolonged until 12 to 18 hours after ingestion. The specific antidote is vitamin K1 (Phytomenandione). Antidote must be

administered under medical supervision. Initially, antidote should be given by injection (10 to 20 mg, or 0.25 mg/kg for children, by slow intravenous infusion at a rate not exceeding 1 mg/minute. In severe cases the use of fresh frozen plasma may be required). Maintenance treatment is given orally (40 mg/day in divided doses for adults; up to 20 mg/day in divided doses for children). The prothrombin time and the haemoglobin should be monitored. Patients should be kept under medical supervision until the prothrombin time has been normal for 3 consecutive days.
Oral treatment may need continuing for several months (20 mg/day in divided doses for adults and up to 20 mg/day in divided doses for children).

Domestic animals exhibiting signs of intoxication:

1. Carry out a prothrombin test. Administer parentally 2 to 5 mg/kg of Vitamin K1. Use the smallest diameter needle feasible and avoid the intravenous route in severely haemorrhagic animals.
2. Repeat prothrombin test about four hours after injection. Provided that the prothrombin time has normalised start daily oral vitamin K1 treatment and continue for 3 to 4 weeks.
3. Carry out a prothrombin test 24 to 48 hours after end of treatment. Continue treatment if signs of poisoning reappear or if prothrombin time is still abnormal.

Domestic animals suspected of consuming bait:

1. Test prothrombin time daily for up to 3 days after suspected date of ingestion.
2. Treat with Vitamin K1 if signs of poisoning appear or if prothrombin time increases.
3. Prophylactic oral Vitamin K1 treatment could be carried out.

Refer to the document “The Treatment of Anticoagulant Rodenticide Poisoning” (1998 or later edition) available at most major treatment hospitals, Poisons Information Centre or Syngenta Australia Pty Ltd.

Section 5: Fire fighting measures

Suitable Extinguishing Equipment:	**Small fires:** Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. DO NOT use a solid water stream as it may scatter and spread fire **Large fires:** Use alcohol resistant foam or water spray. DO NOT use a solid water stream as it may scatter and spread fire.
Specific Hazards Arising from the Chemical:	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Combustion or thermal decomposition will evolve toxic and irritant vapours. Exposure to decomposition products may be a hazard to health.
Special Protective Equipment and Precautions for Fire Fighters:	Wear full protective clothing and self contained breathing apparatus. DO NOT allow runoff from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

Section 6: Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures:	In case of spillage it is important to take all steps necessary to • Avoid eye and skin contact • Avoid contamination of waterways
Environmental precautions:	Avoid dust formation. Do not flush into surface water or sanitary sewer system.
Methods and Materials for Containment and Clean Up:	**Procedure for spill** (1) Keep all bystanders away (2) Wear full length clothing and PVC gloves (3) Reposition any leaking containers so as to minimise leakage (4) Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing. Do not create a powder cloud by using a brush or compressed air. (5) Transfer to a container for disposal (6) Disposal of the material will depend upon the extent of the spill • For quantities up to 50 kg of product bury in a secure landfill site • For quantities greater than 50 kg seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established (7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable If the product contaminates rivers and lakes or drains inform respective authorities

Section 7: Handling and storage

Precautions for Safe Handling:	**Manufacture, packaging and transport:** Avoid skin and eye contact. Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. **Preparation and use of the product:** DO NOT inhale dust. DO NOT touch the bait, use scoop or measure. If on skin and after each baiting, wash thoroughly with soap and water. Only use protective equipment bearing the mark of the Standards Association of Australia
Conditions for Safe Storage, Including any Incompatibilities:	Containers which have held bait should not be used for any other purpose. Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight. Keep out of reach of children, unauthorised persons and animals. Store and transport according to the requirements for a Schedule 6 poison. Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Section 8: Exposure controls and personal protection

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	Component	Exposure limit	Value type
Syngenta Exposure Standards:	brodifacoum	0.002 mg/m^3	8 h TWA
Biological Limit Values:	No biological limits allocated		
Engineering Controls:	**In the workplace:** Natural ventilation should be adequate under normal conditions. Keep containers closed when not in use.		
Personal Protective Equipment:	**Manufacture, packaging and transport:** Avoid skin and eye contact. Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. **Preparation and use of the product:** DO NOT inhale dust. DO NOT touch the bait, use scoop or measure. If on skin and after each baiting, wash thoroughly with soap and water. Only use protective equipment bearing the mark of the Standards Association of Australia.		

Section 9: Physical and chemical properties

Appearance:	Emerald green pellets	**Boiling Point/Range:**	Not available
Odour:	Odourless	**Freezing/Melting Point:**	Not available
pH:	Not applicable	**Solubility:**	Not soluble in water
Vapour Pressure:	Not available	**Specific Gravity or Density:**	0.6 – 0.7 g/cm^3
Vapour Density:	Not available		

Flash Point:	Does not flash	**Explosive Properties:**	Not explosive
Upper and Lower Flammable (Explosive) Limits in Air:	Not available	**Oxidising Properties:**	Not oxidising
		Combustibility:	Combustible
Ignition Temperature:	Not available	**Corrosiveness:**	Not corrosive

Section 10: Stability and reactivity

Reactivity:	No information available
Chemical Stability:	Stable under standard conditions
Possibility of Hazardous Reactions:	None known. Hazardous polymerisation does not occur.
Conditions to Avoid:	No information available
Incompatible Materials:	No information available
Hazardous Decomposition Products:	Combustion or thermal decomposition will evolve toxic and irritant vapours.

Section 11: Toxicological information

Health Effects from Likely Routes of Exposure:		
Acute:	**Oral toxicity:**	**LOW TOXICITY** Tests on rats indicate this product has a low toxicity following single doses of undiluted product. (LD_{50} >5,000 mg/kg)
	Dermal toxicity:	**LOW TOXICITY** Tests on rats indicate this product has a low toxicity following skin contact with undiluted product. (LD_{50} >5,000 mg/kg)
	Inhalation:	Due to the form of this product (solid preparation), inhalation is not considered to be a relevant route of exposure.
	Skin irritation:	**NON IRRITANT**
	Eye irritation:	**NON IRRITANT**
	Sensitisation:	**NOT A SENSITISER**
Chronic	Brodifacoum technical has been extensively tested on laboratory mammals and in test tube systems. No evidence was obtained of mutagenic, carcinogenic, teratogenic neurotoxic or reproductive effects. Excessive exposure slows blood clotting time and can cause bleeding, shock and death.	

Section 12: Ecological information

Ecotoxicity:	**Toxicity to fish:**	**PRACTICALLY NON-TOXIC to fish** *Oncorhynchus mykiss* (Rainbow trout): LC_{50} >100 mg/L, 96 h (Derived from components)
	Toxicity to daphnia and other aquatic invertebrates:	**PRACTICALLY NON-TOXIC to aquatic invertebrates** *Daphnia magna* (Water flea): EC_{50} >100 mg/L, 48 h (Derived from components)
	Toxicity to aquatic plants:	**PRACTICALLY NON-TOXIC to aquatic plants** *Pseudokirchneriella subcapitata* (green algae): EC_{50} >100 mg/L, 72 h (Derived from components)
Persistence and Degradability:	Brodifacoum is persistent in water and nor persistent in soil.	
Mobility	Brodifacoum has low mobility in soil.	
Bioaccumulative Potential:	Brodifacoum has high potential to bioaccumulate.	

Section 13: Disposal considerations

Disposal Methods:	Break, crush, puncture and bury empty containers and dispose of unused bait in a local authority landfill. If no landfill is available, bury the containers or unused bait below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.
Special Precautions for Incineration or Landfill:	Not applicable

Section 14: Transport information

LAND TRANSPORT ADG	Not a dangerous good in Australia		
UN Number:	None allocated	**Packing Group:**	None allocated
UN Proper Shipping Name:	None allocated	**Special Precautions for User:**	None allocated
Transport Hazard Class:	None allocated	**Hazchem or Emergency Action Code:**	None allocated
Subsidiary Risk:	None allocated		

SEA TRANSPORT IMDG	Not a dangerous good in Australia		
UN Number:	None allocated	**Subsidiary Risk:**	None allocated
UN Proper Shipping Name:	None allocated	**Packing Group:**	None allocated
Transport Hazard Class:	None allocated	**Environmental hazards for Transport Purposes:**	None allocated

AIR TRANSPORT IATA - DGR	Not a dangerous good		
UN Number:	None allocated	**Subsidiary Risk:**	None allocated
UN Proper Shipping Name:	None allocated	**Packing Group:**	None allocated
Transport Hazard Class:	None allocated		

Section 15: Regulatory information

APVMA Product Number:	33896
Poisons Schedule (SUSMP):	6

Section 16: Any other relevant information

Date of preparation or last revision: 20 October 2021

Source of Data: The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

Note: This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions

CONTACT POINT: Regulatory Affairs Manager, Syngenta Australia Pty Ltd
(02) 8014 5200
24 HOURS EMERGENCY CONTACT: 1800 033 111

This Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.
If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

DISCLAIMER
This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.

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